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FORM PTO-1449 (REV. 6-89)		U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office		Attorney's Docket No. 20852-05747		Serial No. 09/816,242		
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Applicant David A. Pechner et al.				
				Filing Date March 23, 2001		Group Art Unit 2633 XLS		
U.S. PATENT DOCUMENTS								
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
DJR		4,061,577	12/6/77	Bell	250	199	8/18/76	
DJR		4,701,904	10/20/87	Darcie	370	3		
DJR		4,953,156	8/28/90	Olshansky et al.	370	3	9/8/88	
DJR		5,351,148	9/27/94	Maeda et al.	359	124	5/26/93	
DJR		5,387,927	2/7/95	Look et al.	348	6	9/17/93	
DJR		5,430,568	06/04/95	Little et al.	359	124		
DJR		5,461,612	10/24/95	Göckler, et al.	370	55	10/24/94	
DJR		5,559,561	9/24/96	Wei	348	470	7/15/94	
DJR		5,576,874	11/19/96	Czerwiec et al.	359	123		
DJR		5,596,436	1/21/97	Sargis et al.	359	132	7/14/95	
DJR		5,680,238	10/21/97	Masuda	359	132	11/9/95	
DJR	A	5,878,088	03/02/99	Knutson et al.	375	324	04/10/97	
DJR	B	6,078,412	06/20/00	Fuse et al.	359	124	10/03/96	
FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
DJR		EP 0 717 521 A	06/19/96	EP				No
		EP 0 756 393 A1	29/01/97	EP				No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)								
		Alcatel, "Alcatel 1680 SM 10 Gbps (STM-64) Add Drop Multiplexer", copyright 1997 (printed from http://www.alcatel.com/telecom/mbd/products/products/1680sm.htm on May 24, 1999), pp. 1-4						
		Alcatel, "Alcatel 1692 SM 10 Gbps (OC-192) SONET Transport System", copyright 1997 (printed from http://www.alcatel.com/telecom/mbd/products/products/1692.htm on May 24, 1999), pp. 1-2						
		Alcatel, "The OPTINEX Family of Network Elements", copyright 1997 (printed from http://www.alcatel.com/telecom/ted/products/family.htm on May 24, 1999), pp. 1-7						
		Business Wire, "Harmonic Lightwaves Announces Availability of First MCNS-Compliant QAM Modulator, TRANsend QAM is a Vital Component for Delivering Digital Services", November 18, 1997						
EXAMINER <i>Daniel Lyman</i>				DATE CONSIDERED <i>4 September 2001</i>				
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				Group Art Unit 2633 <i>xx</i>			
U.S. PATENT DOCUMENTS							
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FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
		Cambrian Systems Corporation, "OPTera Metro Optical Networking Platform Product Information," copyright 1997 (printed from http://www.cambriansys.com/productinfo.htm on May 24, 1999), pp. 1-4					
		Dai, H., G. Lin, M. Ramachandran, "Hybrid AM/QAM Video Trunking Lightwave Systems With Cascaded EDFAs", Conf. Proc. LEOS, 97 Annual Meeting, IEEE Lasers & Electro-Optic Society, 1997, Vol. 1, pp. 319-320					
		Douverne, E., M. Ottka, K. Ruthemann, K. Siegel, "Ein 64-QAM-Modem für SDH-Richtfunkgeräte mit integriertem Kreuzpolarisationsentkoppler", Vol. 40, No. 11, 1 March 1994, pages 89-100					
		Fujitsu Network Communications, Inc., "Flash-192 Fujitsu Lightwave Add/Drop Multiplexer," copyright 1997 (printed from http://www.fnc.fujitsu.com/technology/flash192.htm on May 24, 1999), pp. 1-4					
		Fuse, M., Y. Kudo, K. Maeda, "Development of 128 Optical Distribution System of 150 chs AM/QAM Hybrid Signals", Electronics and Communications in Japan, November 1996, Volume 79, Issue 11, Part 1, pp. 65-77					
		Green, P., "Fiber Optic Networks", 1993, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, p. 331, line 4 - line 7, figure 9-1					
		Hiramatsu, A. et al., "Hypermedia Photonic Information Network Based on WDM-SCM Broadcast and Select Switching," Conference Proceedings, Leos '96 9th Annual Meeting, IEEE Lasers and Electro-Optics Society 1996 Annual Meeting (Cat. No. 96CH35895), Boston, MA, November 18-19, 1996, pp. 312-313					
		Hitachi Telecom (USA) Inc., "OC-192 AMN5192 Sonet Node," July 1998, pp. 1-2					
		Ho, K., H. Dai, C. Lin, "Hybrid WDM Digital Trunking System for both HFC and FTTC Access Networks", Digest IEEE/LEOS 1996 Summer Topical Meetings (Cat. No. 96 th 8164), NY, NY, pp. 37-38					
		I-Cube, "Designing a Large Crosspoint With Fast Reconfiguration", Literature #D-22-013, September 1997, pp. 4-9					
		I-Cube, "Optimal I/O Assignment in an IQX-based Crossbar Switch", Literature #D-24-019, September 1997, pp. 1-14					
		I-Cube, "IQX Family Data Sheet", January 1999, pp. 1-58					
EXAMINER <i>David Brown</i>				DATE CONSIDERED <i>7 September 2001</i>			
EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.							
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INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Applicant David A. Pechner et al.		Filing Date March 23, 2001	
				Group Art Unit -2633-2005			
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
		Jones-Bey, H., "Optical switches pursue crossconnect markets," <i>Laser Focus World</i> , May 1998, pp. 153-162.					
		Kanno, N., K. Ito, "Fiber-Optic Subcarrier Multiplexing Transport for Broadband Subscriber Distribution Network", <i>IEEE Intl. Conference on Communications Boston ICC'89 World Prosperity Through Communications, June 11-14, 1989, Boston, MA, Volume 2</i> , pp. 996-1003					
		Kavehrad, M., E. Savov, "Fiber-Optic Transmission of Microwave 64-QAM Signals", <i>IEEE Journal on Selected Areas in Communications, Vol. 8, No. 7, September 1990</i> , pp. 1320-1326					
		Kitayama, Ken-ichi, "Subcarrier Multiplexing Based Signaling and Access Control in Optical FDM Networks", <i>IEEE Global Telecommunications Conference (GLOBECOM'95, Singapore)</i> , Nov. 1995, pp. 1996-2002					
		LeBer, J., M. LeLigne, "Digital Transmission on Electric Subcarriers in Optical Fiber Videocommunication Systems", <i>Optics Communications</i> , October 15, 1987, Volume 64, No. 2, pp. 120-126					
		Li, J., K. Yano, "Development of AM/QAM Hybrid Optical SCM Transmission System", <i>Proc Intl Conf. On Communication Technology ICCT '96, May 5-7, 1996, Beijing, China, Volume 1</i> , pp. 575-577					
		Lu, X., G.F. Bodeep, T.E. Darcie, "Broad-Band AM-VSB/64 QAM Cable TV System Over Hybrid Fiber/Coax Network", <i>IEEE Photonics Technology Letters</i> , Vol. 7, No. 4, April 1995, pp. 330-332					
		Nakamura, Y., H. Ohtsuka, S. Aikawa, H. Takanashi, "Advanced Techniques for Super Multi-Carrier Digital Microwave Radio With Trellis-Coded 256-QAM Modulation", <i>NTT Radio Communication Systems Laboratories</i> , pp. 389-394					
		Nishikido, J. et al., "Multiwavelength Securely-Authenticated Broadcast Network" <i>11th International Conference on Integrated Optics and Optical Fibre Communications, 23rd European Conference on Optical Communications IOOC-ECOC 97 (Conf. Publ. No. 446), Sept. 22, 1997</i> , pp. 17-20					
		Nortel, "S/DMS Transport Node OC-192 System," Issue 1, September 25, 1995, pp. 1-25					
		Ohtsuka, H., O. Kagami, S. Aikawa, H. Takanashi, "256-QAM Subcarrier Transmission for Broadband Distribution Networks", <i>NTT Radio Communications Systems Laboratories, GlobeCom '91</i> , pp. 1817-1822					
EXAMINER <i>Samuel Ryan</i>				DATE CONSIDERED <i>7 September 2001</i>			
EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.							
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INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Applicant David A. Pechner et al.		Group Art Unit 2633 <i>2633</i>	
				Filing Date March 23, 2001			
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
		Park, J., A. Elrefaie, K. Lau, "1550-nm Transmission of Digitally Modulated 28-GHz Subcarriers Over 77 km of Nondispersion Shifted Fiber", <u>IEEE Photonics Technology Letters</u> , February 1997, Volume 9, Issue 2, pp. 256-258					
		Ryan, J., "WDM: North American Deployment Trends," <u>IEEE Communications Magazine</u> , February 1998, pp. 40-44.					
		Schlump, Dieter et al., "Electronic equalization of PMD and chromatic dispersion induced distortion after 100 km standard fibre at 10 Gbit/s" <u>PROCEEDINGS OF THE EUROPEAN CONFERENCE ON OPTICAL COMMUNICATION</u> , 20 September 1998, pp. 535-536.					
		Swaminathan, V., N. Froberg, L. Upadhyayula, "The end-to-end bit error performance of 64-quadrature amplitude modulated signals in a hybrid AM-vestigial sideband/QAM fiber-optic video transmission system", <u>Proceedings of SPIE International Society for Optical Engineering</u> , Volume 2917, pp. 274-282					
		Tai, C., Pi-Yang Chiang, W. Way, "Eight-Way, 70-km Transmission of 33-Channel 64-QAM Signals Utilizing a 1.3-µm External Modulation System and Semiconductor Optical Amplifier", <u>IEEE Photonics Technology Letters</u> , Vol. 8, No. 9, September 1996, pp. 1244-1248					
		Tang, D., "Multi-Gigabit Fiber-Optic Video Distribution Network Using BPSK Microwave Subcarriers", <u>IEEE 1989 MTT-S Intl. Microwave Symp Digest</u> , June 13-15, 1989, Long Beach, CA, Volume 2, pp. 697-701					
		Wilson, G., "Capacity of QAM-SCM systems utilising optically linearised Mach-Zehnder modulator as transmitter", <u>Electronic Letters</u> , Vol. 34, No. 25, December 10, 1998, pp. 2372-2374					
EXAMINER <i>Donal Brown</i>		DATE CONSIDERED <i>12 September 2001</i>					
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PTO-1449
REV: 02/01

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				Group Art Unit 2633 2005			

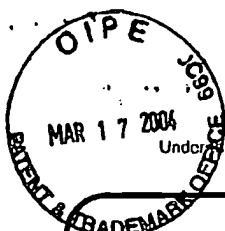
U.S. PATENT DOCUMENTS							
Examined	Patent & Trademark Office	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
		5,938,309	08/17/99	Taylor	357	124	

FOREIGN PATENT DOCUMENTS							
Examined	Patent & Trademark Office	Document Number	Date	Country	Class	Subclass	Translation
							Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							

EXAMINER Daniel R. Green	DATE CONSIDERED 17 September 2001
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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application No.	09/816,242
Filing Date	March 23, 2001
First Named Inventor	David A. Pechner
Art Unit	2633.205
Examiner Name	Jason Chan Ryan
Attorney Docket Number	20852-05747

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document No. Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
DrR		US-6,603,822	08-05-2003	Brede et al.

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶

OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶

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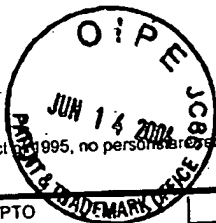
Examiner Signature	Daniel Ryan	Date Considered	7 September 2004
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT****Complete if Known**

Application No.	09/816,242
Filing Date	March 23, 2001
First Named Inventor	David A. Pechner
Art Unit	2665
Examiner Name	Huy-Duy-Va Ryman
Attorney Docket Number	20852-05747

Sheet 1 of 1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document No. Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
DR		US-5,339,184 A	08-16-1994	Tang
DR		US-5,459,607 A	10-17-1995	Fellows et al.
DR		US-6,160,649 A	12-12-2000	Horiuchi et al.
DR		US-6,430,148 B1	08-06-2002	Ring
DR		US-6,529,303 B1	03-04-2003	Rowan et al.
DR		US-6,643,470 B1	11-04-2003	Iida et al.

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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶

OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶

Examiner Signature	Patricia Ryman	Date Considered	7 September 2004
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